

13. (Amended) The method according to [any one of claims] Claim 1 [to 4],
wherein said etching is carried out at a temperature of from 40°C to 90°C for 3 seconds
to 30 minutes.

14. (Amended) The method according to [any one of claims] Claim 1 [to 4],
wherein said Mg is in a content of 2% by weight or more.

REMARKS

Claims 7, 9, 11, 13 and 14 have been amended to reflect that Claims 2-4 have
been withdrawn from consideration. Claims 18-28 include the limitation that the aqueous
solution has a pH of 7 or higher.

As discussed on page 8, lines 7-13 of the application, although there is no
particular limitation on the pH of the aqueous etching solution, the preferred range is 7 or
higher. Unlike prior art processes, the inventive method does not require multi-stage
etching wherein both acidic and alkaline aqueous solutions are used.

The Examiner rejected Claims 1, 7-15 and 17 under 35 U.S.C. § 103 as being
unpatentable over the apparent admitted prior art in view of Lowenheim. The Examiner
reasoned that the admitted prior art shows that the process of etching aluminum and
subsequent treatment to improve corrosion resistance is known, citing, for example,
Japanese document 1-212,775. The Examiner stated that the claimed invention differs by

reciting that the method for improving corrosion resistance is hydration oxidation treatment. However, the Examiner stated that Lowenheim discloses a process of sealing aluminum by immersing in boiling water to promote hydration oxidation, thus, the Examiner concluded that it would have been obvious to include a step of hydration oxidation treatment in the process of the admitted prior art because this treatment is known to improve corrosion resistance.

Applicants submit that the Examiner's reliance on the Japanese reference is inappropriate. Japanese publication No. 1-212,775 discloses a process for etching aluminum that takes place prior to surface treatment (i.e., anodizing), which requires two steps: etching with an acidic solution (i.e., below pH 7) followed by etching with an alkaline solution (i.e., above pH 7). This expensive process is not satisfactory since it leaves smuts which may result in defective coatings. (See the specification at page 3, lines 8 et seq.) In contrast, the claimed invention does not require a two-step etching treatment. Indeed, the added claims include the limitation that the aqueous solution has a pH of 7 or higher.

Moreover, there is no suggestion in the prior art of employing a chelating agent in the etching solution. Although Lowenheim discloses the use of chelating agents as substitutes for phosphates in alkaline cleaners, Lowenheim teaches the use of chelating agents for environment reasons when phosphate-free solutions are desired. (See page 75, lines 20-23 and page 76, lines 22-23.) A person skilled in the art would not be inclined

to use chelating agents because they are more expensive. Furthermore, as evidenced by the comparative data set forth in Table 1, on page 18 of the application, etching without a chelating agent produces surfaces having unacceptable corrosion, strength, and appearance. Applicants submit that the unexpected results achieved with the chelating agent are not suggested by the prior art.

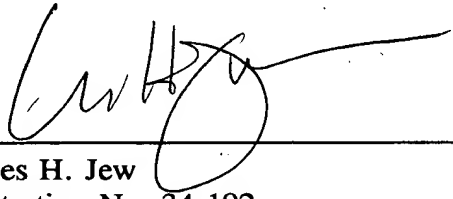
Finally, even assuming arguendo that Lowenheim does disclose hydration oxidation as suggested by the Examiner, Lowenheim still does not cure the deficiencies of the prior art noted above.

Applicants submit that the pending claims define novel and unobvious subject matter and an early Notice of Allowance is respectfully requested.

Respectfully submitted,

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